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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/606,850

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Curtis A. Richardson

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EXAMINER

MARTIN, ANGELA J

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

03/30/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/606,850 | Applicant(s) RICHARDSON ET AL. | |
| | Examiner ANGELA J. MARTIN | Art Unit 1795 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to the Remarks filed on December 8, 2008. The Applicant's arguments have been fully considered but they are not persuasive. The rejection is made final for the following reasons of record.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al., U.S. Pat. Application Pub. 2003/0203267 A1, in view of Kenchington et al., U.S. Pat. No. 6,626,650 B1.

Rejection of claims 11-31 drawn to a fuel cell assembly.

Chou et al., teach a fuel cell assembly comprising a fuel cell stack (0021), a supporting structure, and a gas spring disposed with the assembly (0067) between the stack and supporting structure (Fig. 5, 6), the spring including a first and second membranes (Fig. 5, 6; ref. 301), means for sealing edges of the membranes to define a closed chamber for capture of gas (0068-0075). It teaches a solid oxide fuel cell (0021).

Chou et al., do not teach a first and second valve means.

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Kenchington et al., teach a first (col. 8, lines 1-4) and second valve means (col. 13, lines 6-14) for fluid displacement (col. 3, lines 15-21), which may be used in a fuel cell system (col. 6, lines 4-9), and a gas spring disposed with the assembly (col. 3, lines 7-9).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Kenchington et al., into the teachings of Chou et al., because Kenchington et al., teach that the first and second valve means allow gas to be expelled only when a pressure differential is established, which would prevent a portion of gas from leaking in an opposite direction from the flow of gas.

Response to Arguments

3. Applicant's arguments filed 12/8/08 have been fully considered but they are not persuasive. Applicant argues that "the compression member" of Chou is not a gas spring. However, the compression member of Chou states that the compression member may be a "spring" (0067), although it does not specifically recite what type of spring. Applicant argues that the prior art of record does not teach "a fuel cell assembly including gas spring means disposed within the fuel cell assembly between a fuel cell stack and a supporting structure." However, as depicted in Fig. 5 and 6 of Chou, the fuel cell assembly (ref 300) comprises a compression means ("spring") (ref 301, 302, 303) within the fuel cell assembly between a fuel cell stack (ref 340, 350, 360) and supporting structure (ceramic substrate within each fuel cell component).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Birschbach, U.S. Pat. Application Pub. 2004/0146769 teaches a fuel cell including a spring for compression. Becerra et al., U.S. Pat. Application Pub. 2003/0129464 A1 teach a fuel cell including a spring for compression. Walsh, U.S. Pat. 7,041,411, A1 teaches a fuel cell including a spring for compression.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA J. MARTIN whose telephone number is (571)272-1288. The examiner can normally be reached on Monday-Friday from 10:00 am to 6:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJM

Examiner, Art Unit 1795

/PATRICK RYAN/

Supervisory Patent Examiner, Art Unit 1795